Attorney Docket: Ahmed 5 AF IFW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application

Applicant(s)	Walid Ahmed
Docket No.:	5
Serial No.:	09/379,675
Filing Date:	August 24, 1999
Group:	2617
Examiner:	Sheila B. Smith

I hereby certify that this paper is being deposited on this date with the U.S. Postal Service as first class mail addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

Signature: Bobbett Blake Date: September 5, 2006

Title: Distributed Dynamic Channel Allocation Technique for Multi-Carrier CDMA Cellular Systems with Mobile Base Stations

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TRANSMITTAL LETTER

Mail Stop Appeal Brief - Patents
Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Submitted herewith are the following documents relating to the above-identified patent application:

1. Response to Notification of Non-Compliance with 37 C.F.R. §41.37; and
2. Corrected Appeal Brief.

In the event of non-payment or improper payment of a required fee, the Commissioner is authorized to charge or to credit **Deposit Account No. 50-0762** as required to correct the error a duplicate copy of this letter is enclosed.

Respectfully,

Kevin M. Mason

Date: September 5, 2006

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RESPONSE TO NOTIFICATION OF NON-COMPLIANCE WITH 37 C.F.R. §41.37

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Notification of Non-Compliance with 37 C.F.R. §41.37, dated August 8, 2006, Applicants submit herewith a Corrected Appeal Brief.

Respectfully submitted,

Kevin M. Mason

Dated: September 5, 2006

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PATENT APPLICATION

Applicant(s): Walid Ahmed
Case: 5
Serial No.: 09/379,675
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Signature: Bobbett Blake Date: September 5, 2006

Title: Distributed Dynamic Channel Allocation Technique for Multi-Carrier CDMA Cellular Systems with Mobile Base Stations

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CORRECTED APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Appellants hereby submit this corrected Appeal Brief to conform to the current format requirements. The original Appeal Brief was submitted on July 17, 2006 to appeal the final rejection dated January 25, 2006, of claims 1 through 26 of the above-identified patent application.

REAL PARTY IN INTEREST

The present application is assigned to Lucent Technologies, Inc., as evidenced by an assignment recorded on August 24, 1999 in the United States Patent and Trademark Office at Reel 010198, Frame 0629. The assignee, Lucent Technologies, Inc., is the real party in interest.

RELATED APPEALS AND INTERFERENCES

There are no related appeals and interferences.

STATUS OF CLAIMS

Claims 1 through 26 are presently pending in the above-identified patent application. Claims 1-10, 12-23, 25, and 26 remain rejected under 35 U.S.C. §103(a) as being unpatentable over Ohyama et al. (United States Patent Number 6,243,575) in view of Salmine (United States Patent Number 6,463,286) and claims 14-23, 25, and 26 remain rejected under 35 U.S.C. §103(a) as being unpatentable over Ohyama et al. in view of Salmine, and further in view of Lee (United States Patent Number 6,246,883). Claims 1, 5, 6, 8, 10-14, 18, 19, 21, and 23-26 are being appealed.

STATUS OF AMENDMENTS

There have been no amendments filed subsequent to the final rejection.

SUMMARY OF CLAIMED SUBJECT MATTER

The present invention is directed to a distributed dynamic channel allocation algorithm for a multi-carrier CDMA cellular system having at least one mobile base station. The disclosed distributed dynamic channel allocation algorithm used channel power measurements from both the requesting mobile station and the mobile base station attempting to allocate an available resource to the mobile station (page 4, lines 4-14). The distributed dynamic channel allocation algorithm attempts to allocate the best available resource for the requesting mobile station, in terms of interference, while minimizing the amount of interruption that the allocated resource may cause to existing connections in neighboring cells. Thus, the distributed dynamic channel allocation algorithm follows a "least-interference, least-interruption" strategy (page 4, lines 15-27). The distributed dynamic channel allocation algorithm of the present invention is load balancing, since it tends to assign new resources to mobile base station with lighter loads (page 4, lines 21-27). Due to the mobility of the mobile base station, a mobile base station can cause interference to mobiles connected to another close-by mobile base station. The uplink and downlink channels are not paired and can be independently assigned to requesting mobile stations (page 4, line 28, to page 5, line 27). A dynamic channel allocation process assigns resources to new mobile stations, while a dynamic channel allocation process assigns a new

resource to an existing mobile station. The dynamic channel allocation process (new mobile) and dynamic channel allocation process (new resource for existing mobile) process collected measurement information on network interference and load conditions, and assign a resource to a requesting mobile station in an optimum manner (pages 6-15).

In one exemplary embodiment, a method for allocating a resource to a mobile station (150) in a wireless communications network having at least one mobile base station is disclosed, comprising the steps of: collecting measurements of interference and load in the wireless communications network, wherein the collected measurements include nominal resource availability information and measured resource availability information (page 5, line 28, to page 11, line 23); processing the collected information to identify a resource for the mobile station; and assigning the resource to the mobile station (page 12, line 1, to page 15, line 7).

In one exemplary embodiment, a system for allocating a resource to a mobile station in a wireless communications network having at least one mobile base station is disclosed, said system comprising: a memory for storing computer readable code; and a processor operatively coupled to said memory, said processor configured to: collect measurements of interference and load in the wireless communications network, wherein the collected measurements include nominal resource availability information and measured resource availability information (page 5, line 28, to page 11, line 23); process the collected information to identify a resource for the mobile station; and assign the resource to the mobile station (page 12, line 1, to page 15, line 7).

In another exemplary embodiment, the nominal resource availability is a nominal capacity value for each band on the network less the number of users on the band (page 6, lines 14-21).

In one exemplary embodiment, a method for allocating a resource to a mobile station (150) in a wireless communications network having a plurality of base stations including at least one mobile base station is disclosed, comprising the steps of: collecting measurements of interference and load in the wireless communications network, wherein the collected measurements include received power measurements from neighboring base stations (page 5, line 28, to page 11, line 23); processing the collected information to identify a resource for the

mobile station; and assigning the resource to the mobile station (page 12, line 1, to page 15, line 7).

In one exemplary embodiment, a system for allocating a resource to a mobile station in a wireless communications network having a plurality of base stations including at least one mobile base station is disclosed, said system comprising: a memory for storing computer readable code; and a processor operatively coupled to said memory, said processor configured to: collect measurements of interference and load in the wireless communications network, wherein the collected measurements include received power measurements from neighboring base stations (page 5, line 28, to page 11, line 23); process the collected information to identify a resource for the mobile station; and assign the resource to the mobile station (page 12, line 1, to page 15, line 7).

In another exemplary embodiment, received power measurements provide an indication of the distance to a neighboring base station (page 5, line 28, to page 9, line 21).

In one exemplary embodiment, a method for allocating a resource to a mobile station (150) in a wireless communications network having a plurality of base stations including at least one mobile base station is disclosed, comprising the steps of: collecting measurements of interference and load in the wireless communications network, wherein the collected measurements include predicted new load information (page 5, line 28, to page 11, line 23); processing the collected information to identify a resource for the mobile station; and assigning the resource to the mobile station (page 12, line 1, to page 15, line 7).

In one exemplary embodiment, a system for allocating a resource to a mobile station in a wireless communications network having a plurality of base stations including at least one mobile base station is disclosed, said system comprising: a memory for storing computer readable code; and a processor operatively coupled to said memory, said processor configured to: collect measurements of interference and load in the wireless communications network, wherein the collected measurements include predicted new load information (page 5, line 28, to page 11, line 23); process the collected information to identify a resource for the mobile station; and assign the resource to the mobile station (page 12, line 1, to page 15, line 7).

In another exemplary embodiment, the predicted new load, $\mu_{l,i}^{D}$, is computed as follows:

$$\mu_{l,i}^{D} = p_{l,i}^{D} \sum_{k=1}^{K} \lambda_{k}^{D},$$

where $p_{l,i}^{D}$ is a probability of assigning a resource to a band and λ_{k}^{D} are a number of users over a downlink band (page 9, line 15, to page 11, line 23).

In one exemplary embodiment, a method for allocating a resource to a mobile station (150) in a wireless communications network having a plurality of base stations including at least one mobile base station is disclosed, comprising the steps of: collecting measurements of interference and load in the wireless communications network (page 5, line 28, to page 11, line 23); processing the collected information to identify a resource for the mobile station such that the resource allocation minimizes a call drop rate; and assigning the resource to the mobile station (page 12, line 1, to page 15, line 7).

In one exemplary embodiment, a system for allocating a resource to a mobile station in a wireless communications network having a plurality of base stations including at least one mobile base station is disclosed, said system comprising: collecting measurements of interference and load in the wireless communications network (page 5, line 28, to page 11, line 23); processing the collected information to identify a resource for the mobile station such that the resource allocation minimizes a call drop rate; and assigning the resource to the mobile station (page 12, line 1, to page 15, line 7).

In one exemplary embodiment, a call drop rate ensures that a resource will not be assigned to the mobile station (150) if a likelihood that allocating the resource to the mobile station will cause another mobile station to be dropped exceeds a predefined threshold (page 12, line 1, to page 15, line 7).

STATEMENT OF GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-10, 12-23, 25, and 26 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ohyama et al. in view of Salmine and claims 14-23, 25, and 26 are rejected

under 35 U.S.C. §103(a) as being unpatentable over Ohyama et al. in view of Salmine, and further in view of Lee.

ARGUMENT

Independent Claims 1, 6, 10, 12, 14, 19, 23 and 25

Independent claims 1, 6, 10, 12, 14, 19, 23, and 25 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ohyama et al. in view of Salmine and claims 14, 19, 23, and 25 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ohyama et al. in view of Salmine, and further in view of Lee.

Regarding claim 1, the Examiner acknowledges that Ohyama fails to specifically disclose wherein said collected measurements include nominal resource availability information and measured resource availability information, but asserts that Salmine discloses that collected measurements include nominal resource availability information (which reads on "whether or not the visited network is capable of handling traffic for one or more mobile stations" as disclosed in column 4, lines 21-22) and measured resource availability (which reads on "whether or not it will and can grant an access to a particular number of mobile stations" as disclosed in column 4, lines 26-27). Regarding claim 6, the Examiner asserts that Ohyama discloses collecting measurements of interference and load in said wireless communications network, wherein said collected measurements include received power measurements from neighboring base stations (col. 12, lines 51-63). Regarding claims 10, 12, and 25, the Examiner asserts that Ohyama discloses collecting measurements of interference and load in said wireless communications network, wherein said collected measurements include predicted new load information (col. 12, lines 51-63). Regarding claims 14, 19, and 23, the Examiner asserts that Ohyama discloses processing said collected information to identify a resource for said mobile station; and assigning said resource to said mobile station (col. 12, lines 5-8).

In the Response to Arguments section of the final Office Action, the Examiner asserts that "collecting measurements would have had to have been an inherent feature in order to make a determination (of) 'whether or not the visited network is capable of handling traffic for one or more mobile stations' it would have had to gather or collect the information in order to

make the determination." Regarding claim 6, the Examiner further asserts that "collected measurements include received power measurements from neighboring base stations which reads on 'the mobile base station maintains transmission power in the mobile zones higher than the existing zones not affected by the existing radio zone.'" (Col. 8, lines 12-16.)

Regarding claim 1, Appellant notes that Salimen is directed to allowing "a selective national roaming for those subscribers (mobile stations) which the first home network PLMN (HPLMN) can not handle during a predetermined condition, e.g. an overload condition." (Col. 8, lines 3-6.) Salimen teaches few details regarding the predetermined condition, including the detection of an overload condition. For example, Salimen teaches that

> the overload can e.g be detected *simply when all communication resources in the first switching means are occupied by ongoing calls* of mobile stations MS registered in the first home network HPLM. If a call set-up request by a mobile station MS must be rejected as a consequence of no resources being available then this already indicates an overload condition at least in the switching means of the area where the requesting mobile station MS is currently located. Other possible overload conditions may be e.g. *the deterioration of transmission conditions or a complete collapse of the first mobile network due to serious operation or transmission errors.*
> (Col. 8, lines 23-34; emphasis added.)

Independent claims 1 and 14 require collecting measurements of interference and load in said wireless communications network, wherein said collected measurements include *nominal resource availability information* and *measured resource availability information*. Appellant notes that "nominal" is defined as a term used to describe functional behavior as being within expected norms, or as designed (see, The IEEE Standard Dictionary of Electrical and Electronics Terms, Sixth Edition.) Thus, *nominal* resource availability information is resource availability information that describes the *expected norms*; *for example*, the nominal resource availability information may relate to the available resources in *terms of the specified capacity*, as would be apparent to a person of ordinary skill in the art (see, page 6, lines 14-21, of the originally filed specification). Thus, although Salimen discloses determining "whether or not the visited network is capable of handling traffic for one or more mobile stations," Salimen does ***not*** disclose or suggest ***collecting measurements*** that include ***nominal*** *resource availability information and* ***measured*** *resource availability information,* as would be apparent to a person of

ordinary skill in the art.

Regarding the Examiner's assertion that collecting measurements would have had to have been an inherent feature, Appellant notes that the ability to "handle traffic" is typically based on various parameters, such as the network's maximum resource capabilities; collecting measurements that include "nominal resource availability" is ***not** required* to determine whether or not the visited network is capable of handling traffic for one or more mobile stations, as would be apparent to a person of ordinary skill in the art. Thus, Appellant maintains that Salimen does not disclose or suggest *collecting measurements* that include ***nominal** resource availability information.*

Regarding claims 6, 10, 12, and 25, Appellant notes that, in the text cited by the Examiner, Ohyama teaches that,

> upon receiving the request, the existing base station B requests the network to issue an instruction to specify a new radio channel. Upon receiving the instruction from the network, the existing base station B transfers it to the mobile base station in step S292. The mobile base station synchronizes the new channel with the existing base station A and switches the present speech channel connected to the existing base station B to the new channel connected to the existing base station A in step S293. The existing base station B releases the present channel in step S297. Subscriber terminals under the control of the mobile base station never participate in these operations, and therefore, no channel switching occurs in the subscriber terminals.
> (Col. 12, lines 51-63.)

Appellant notes that Ohyama does ***not*** disclose or suggest that collected measurements include *received power measurements from **neighboring** base stations*, does not disclose or suggest ***predicted new load*** information, and does not disclose or suggest that the resource allocation ***minimizes a call drop rate.***

Regarding the Examiner's assertion that "collected measurements include received power measurements from neighboring base stations reads on 'the mobile base station maintains transmission power in the mobile zones higher than the existing zones not affected by the existing radio zone,'" Appellant notes that the Examiner is apparently reading the cited claims as requiring that the amount of power received from neighboring base station(s) is measured and collected. First, the Ohyama citation does not explicitly disclose or suggest

measuring power. Second, since the cited claims recite "received power measurements from neighboring base stations," it is the ***measurement** that is received from the neighboring base stations*; the terms "received" and "power" are adjectives for the term "measurement." For example, the present disclosure teaches that "*the mobile base stations 100 R_1, ..., R_N also **send their normalized received power levels*** $\overline{P}_{M_k \rightarrow R_i}$." (Page 12, lines 27-28; emphasis added.) Thus, contrary to the Examiner's assertion, collected measurements that include received power measurements from neighboring base stations does not read on "the mobile base station maintains transmission power in the mobile zones higher than the existing zones not affected by the existing radio zone."

Independent claims 6 and 19 require collecting measurements of interference and load in said wireless communications network, wherein said collected measurements include received power measurements from *neighboring base stations*. Independent claims 10 and 23 require collecting measurements of interference and load in said wireless communications network, wherein said collected measurements include *predicted new load information*. Independent claims 12 and 25 require processing said collected information to identify a resource for said mobile station such that said resource allocation *minimizes a call drop rate*.

Appellant also notes that Lee does ***not*** disclose or suggest that collected measurements include load measurements, nominal resource availability information, measured resource availability information, or predicted new load information and does ***not*** disclose or suggest that collected measurements include received power measurements from neighboring base stations.

Thus, Ohyama et al., Salimen, and Lee, alone or in combination, do not disclose or suggest collecting measurements of interference and load in said wireless communications network, wherein said collected measurements include nominal resource availability information and measured resource availability information, as required by independent claims 1 and 14, do not disclose or suggest collecting measurements of interference and load in said wireless communications network, wherein said collected measurements include received power measurements from neighboring base stations, as required by independent claims 6 and 19, do not disclose or suggest collecting measurements of interference and load in said wireless

communications network, wherein said collected measurements include predicted new load information, as required by independent claims 10 and 23, and do not disclose or suggest processing said collected information to identify a resource for said mobile station such that said resource allocation minimizes a call drop rate, as required by independent claims 12 and 25.

Claims 5 and 18

Claims 5 and 18 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ohyama et al. in view of Salmine and claim 18 is rejected under 35 U.S.C. §103(a) as being unpatentable over Ohyama et al. in view of Salmine, and further in view of Lee. Regarding claim 18, the Examiner asserts that Ohyama discloses that a nominal resource availability is a nominal capacity value for each band on said network less the number of users on said band (col. 12, lines 29-34).

In the text cited by the Examiner, Ohyama teaches that

> a channel switching operation for a call of a subscriber terminal that is present in one of the mobile radio zones of the mobile base station is classified into a channel switching operation between existing radio zones, and a channel switching operation between the mobile radio zones of the mobile base station.
> (Col. 12, lines 29-34.)

Contrary to the Examiner's assertion, Appellant could find no disclosure or suggestion by Ohyama that a nominal resource availability is a nominal capacity value for each band on said network less the number of users on said band. Claims 5 and 18 require wherein said nominal resource availability is a nominal capacity value for each band on said network less the number of users on said band.

Thus, Ohyama et al., Salmine, and Lee, alone or in any combination, do not disclose or suggest wherein said nominal resource availability is a nominal capacity value for each band on said network less the number of users on said band, as required by claims 5 and 18.

Claims 8 and 21

Claims 8 and 21 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ohyama et al. in view of Salmine and claim 21 is rejected under 35 U.S.C. §103(a) as being unpatentable over Ohyama et al. in view of Salmine, and further in view of Lee. Regarding claim 8, the Examiner asserts that Ohyama discloses that received power measurements provide

an indication of the distance to a neighboring base station (col. 12, lines 29-34).

In the text cited by the Examiner, Ohyama teaches

> a channel switching operation for a call of a subscriber terminal that is present in one of the mobile radio zones of the mobile base station is classified into a channel switching operation between existing radio zones, and a channel switching operation between the mobile radio zones of the mobile base station.
> (Col. 12, lines 29-34.)

Contrary to the Examiner's assertion, Appellant could find no disclosure or suggestion by Ohyama that received power measurements provide an indication of the distance to a neighboring base station. Claims 8 and 21 require wherein said received power measurements provide an indication of the distance to a neighboring base station.

Thus, Ohyama et al., Salmine, and Lee, alone or in any combination, do not disclose or suggest wherein said received power measurements provide an indication of the distance to a neighboring base station, as required by claims 8 and 21.

<u>Claims 11 and 24</u>

The Examiner did not reject claims 11 and 14. Appellant could also find no disclosure or suggestion by Ohyama, Salmin, or Lee that said predicted new load, $\mu_{l,i}^{D}$, is computed as follows:

$$\mu_{l,i}^{D} = p_{l,i}^{D} \sum_{k=1}^{K} \lambda_{k}^{D},$$

where $p_{l,i}^{D}$ is a probability of assigning a resource to a band and λ_{k}^{D} are a number of users over a downlink band.

Thus, Ohyama et al., Salmine, and Lee, alone or in any combination, do not disclose or suggest wherein said predicted new load, $\mu_{l,i}^{D}$, is computed as follows:

$$\mu_{l,i}^{D} = p_{l,i}^{D} \sum_{k=1}^{K} \lambda_{k}^{D},$$

where $p_{l,i}^{D}$ is a probability of assigning a resource to a band and λ_{k}^{D} are a number of users over a downlink band, as required by claims 11 and 24.

Claims 13 and 26

Dependent claims 13 and 26 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ohyama et al. in view of Salmine and claim 26 is rejected under 35 U.S.C. §103(a) as being unpatentable over Ohyama et al. in view of Salmine, and further in view of Lee. The Examiner did not provide any specific comments regarding the limitations of claims 13 and 26.

Appellant could find no disclosure or suggestion by Ohyama, Salmin, or Lee that a call drop rate ensures that a resource will not be assigned to said mobile station if a likelihood that allocating said resource to said mobile station will cause another mobile station to be dropped exceeds a predefined threshold. Claims 13 and 26 require wherein said call drop rate ensures that a resource will not be assigned to said mobile station if a likelihood that allocating said resource to said mobile station will cause another mobile station to be dropped exceeds a predefined threshold.

Thus, Ohyama et al., Salmine, and Lee, alone or in any combination, do not disclose or suggest wherein said call drop rate ensures that a resource will not be assigned to said mobile station if a likelihood that allocating said resource to said mobile station will cause another mobile station to be dropped exceeds a predefined threshold, as required by claims 13 and 26.

Conclusion

The rejections of the cited claims under section 103 in view of Ohyama et al., Salmine, and Lee, alone or in any combination, are therefore believed to be improper and should be withdrawn. The remaining rejected dependent claims are believed allowable for at least the reasons identified above with respect to the independent claims.

The attention of the Examiner and the Appeal Board to this matter is appreciated.

Respectfully,

Kevin M. Mason

Date: September 5, 2006

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CLAIMS APPENDIX

1. A method for allocating a resource to a mobile station in a wireless communications network having at least one mobile base station, said method comprising the steps of:

collecting measurements of interference and load in said wireless communications network, wherein said collected measurements include nominal resource availability information and measured resource availability information;

processing said collected information to identify a resource for said mobile station; and

assigning said resource to said mobile station.

2. The method of claim 1, wherein said measurements are collected from both said mobile station and said base stations.

3. The method of claim 1, wherein said nominal resource availability information provides a measure of the load on said wireless communications network.

4. The method of claim 1, wherein said measured resource availability information provides a measure of the interference on said wireless communications network.

5. The method of claim 1, wherein said nominal resource availability is a nominal capacity value for each band on said network less the number of users on said band.

6. A method for allocating a resource to a mobile station in a wireless communications network having a plurality of base stations including at least one mobile base station, said method comprising the steps of:

collecting measurements of interference and load in said wireless communications network, wherein said collected measurements include received power measurements from neighboring base stations;

processing said collected information to identify a resource for said mobile station; and

assigning said resource to said mobile station.

7. The method of claim 6, wherein said power measurements are received from said neighboring base stations on a beacon channel.

8. The method of claim 6, wherein said received power measurements provide an indication of the distance to a neighboring base station.

9. The method of claim 6, wherein said measurements are collected from both said mobile station and said base stations.

10. A method for allocating a resource to a mobile station in a wireless communications network having a plurality of base stations including at least one mobile base station, said method comprising the steps of:

collecting measurements of interference and load in said wireless communications network, wherein said collected measurements include predicted new load information;

processing said collected information to identify a resource for said mobile station; and

assigning said resource to said mobile station.

11. The method of claim 10, wherein said predicted new load, $\mu_{l,i}^{D}$, is computed as follows:

$$\mu_{l,i}^{D} = p_{l,i}^{D} \sum_{k=1}^{K} \lambda_{k}^{D},$$

where $p_{l,i}^{D}$ is a probability of assigning a resource to a band and λ_{k}^{D} are a number of users over a downlink band.

12. A method for allocating a resource to a mobile station in a wireless communications network having a plurality of base stations including at least one mobile base station, said method comprising the steps of:

collecting measurements of interference and load in said wireless communications network;

processing said collected information to identify a resource for said mobile station such that said resource allocation minimizes a call drop rate; and

assigning said resource to said mobile station.

13. The method of claim 12, wherein said call drop rate ensures that a resource will not be assigned to said mobile station if a likelihood that allocating said resource to said mobile station will cause another mobile station to be dropped exceeds a predefined threshold.

14. A system for allocating a resource to a mobile station in a wireless communications network having at least one mobile base station, said system comprising:

a memory for storing computer readable code; and

a processor operatively coupled to said memory, said processor configured to:

collect measurements of interference and load in said wireless communications network, wherein said collected measurements include nominal resource availability information and measured resource availability information;

process said collected information to identify a resource for said mobile station; and

assign said resource to said mobile station.

15. The system of claim 14, wherein said measurements are collected from both said mobile station and said base stations.

16. The system of claim 14, wherein said nominal resource availability information provides a measure of the load on said wireless communications network.

17. The system of claim 14, wherein said measured resource availability information provides a measure of the interference on said wireless communications network.

18. The system of claim 14, wherein said nominal resource availability is a nominal capacity value for each band on said network less the number of users on said band.

19. A system for allocating a resource to a mobile station in a wireless communications network having a plurality of base stations including at least one mobile base station, said system comprising:

a memory for storing computer readable code; and

a processor operatively coupled to said memory, said processor configured to:

collect measurements of interference and load in said wireless communications network, wherein said collected measurements include received power measurements from neighboring base stations;

process said collected information to identify a resource for said mobile station; and

assign said resource to said mobile station.

20. The system of claim 19, wherein said power measurements are received from said neighboring base stations on a beacon channel.

21. The system of claim 19, wherein said received power measurements provide an indication of the distance to a neighboring base station.

22. The system of claim 19, wherein said measurements are collected from both said mobile station and said base stations.

23. A system for allocating a resource to a mobile station in a wireless communications network having a plurality of base stations including at least one mobile base

station, said system comprising:

a memory for storing computer readable code; and

a processor operatively coupled to said memory, said processor configured to:

collect measurements of interference and load in said wireless communications network, wherein said collected measurements include predicted new load information;

process said collected information to identify a resource for said mobile station; and

assign said resource to said mobile station.

24. The system of claim 23, wherein said predicted new load, $\mu_{l,i}^{D}$, is computed as follows:

$$\mu_{l,i}^{D} = p_{l,i}^{D} \sum_{k=1}^{K} \lambda_{k}^{D},$$

where $p_{l,i}^{D}$ is a probability of assigning a resource to a band and λ_{k}^{D} are a number of users over a downlink band.

25. A system for allocating a resource to a mobile station in a wireless communications network having a plurality of base stations including at least one mobile base station, said system comprising:

collecting measurements of interference and load in said wireless communications network;

processing said collected information to identify a resource for said mobile station such that said resource allocation minimizes a call drop rate; and

assigning said resource to said mobile station.

26. The system of claim 25, wherein said call drop rate ensures that a resource will not be assigned to said mobile station if a likelihood that allocating said resource to said mobile station will cause another mobile station to be dropped exceeds a predefined threshold.

EVIDENCE APPENDIX

There is no evidence submitted pursuant to § 1.130, 1.131, or 1.132 or entered by the Examiner and relied upon by appellant.

RELATED PROCEEDINGS APPENDIX

There are no known decisions rendered by a court or the Board in any proceeding identified pursuant to paragraph (c)(1)(ii) of 37 CFR 41.37.